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AUTHOR Bromberg, Erik
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ABSTRACT

A basic description of the Planning, Programming and Budgeting System (PPBS) and how it can be utilized by the practicing librarian is presented. PPBS is described as a system of relating planning to budgeting that seeks to get your dollars worth for you by analyzing what ycu are doing in the light of what you should be doing and plan to do in the years to come and tieing that back to your standard yearly budget. The importance of having clearly defined program objectives is stressed. A planning budget must follow a generally standard pattern which is introduced by intensive thinking or analysis about the library needs of the community and followed by an analysis of the potential and actual benefits of the library's services. Six steps needed to effectively use PPBS are: (1) critically define broad goals and objectives, (2) lay out a program structure, (3) set out the objectives for each program, (4) detail every possible way of attaining each objective, (5) make a cost-effectiveness study of the alternate approaches of each alternative and (6) formulate rules of standards by which to rank the alternatives in order of desirability. This procedure should be applied frequently to new problem areas -- at least each budget cycle. (NH)

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SIMPLIFIED PPBS FOR THE LIBRARIAN

By

Erik Bromberg
Director of Library Services
U.S. Department of the Interior
Washington, D. C.

Prepared for the Dollar Decision Pre-Conference Institute, sponsored by the Library Administration Division of the American Library Association at Dallas, Texas, June 17-19, 1971.

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SIMPLIFIED PPBS FOR THE LIBRARIAN

So you are Director of Library Services for Smithfield, Washington a middle income city of 200,000.

What are you doing for a living? Running a library system? And what does that mean? Does it mean that today June 26, 1972, you are making administrative and political decisions which involve current or shortly upcoming problems?

In a large part true. But as director of library services you also are or should be constantly working on or toward a set of long range objectives or implications of your job.

Your objective is simply to provide library service to Smithfield, eh? All of Smithfield - including all the school kids while they are in school? Oh, of course not, I understand. But everybody else, of course.

Everybody? By the way, are you now serving everybody? Of course not. Oh, who aren't you serving that you would like to serve? Yes - the prisoners at the city jail, more of the overflow from the schools at night, the unreached ghetto folk, the small industries, the transients at charitable centers, the shut-ins, the hospitalized and aged... oh, of course, there are more.

So these are your objectives. To keep on serving your current patrons and to expand service to persons not reached by your library systems - now - June 26, 1972.

What plans have you formulated for all of this? Good, you have made a study of the potential for a ghetto branch and you are going to ask the board for a start next year. How about the others... oh, I see their turn will come after that branch.

Have you thought of a comprehensive long range plan to accomplish your objectives? A plan which would lay out alternative ways by which you can accomplish all or part of each element of your plan over the next five or ten years. No? Have you started any systematic analysis of the methods and costs of each way to accomplish each element? No?

Have you heard of that dreadful term: PPBS or Planning, Programming and Budgeting System? How about systems analysis? Vaguely? Over your dead body will those cursed blue-skyers come into your library with their equally cursed computers and equations. How about looking at these monsters with me for a moment.[1]

The origin of that dreadful term PPBS, is dubious.[2] It was created by a Think Tank squad in the Defense Department in the early 60's assigned the task of spending the dollars allotted the department in the best way possible. They started with certain assumptions with which we can all agree: (1) public funds are limited (2) the controllable portion of the budget in any one year is small (3) innovations are difficult to implement and likewise some existing programs may have outlived their time (4) there is a need for a link between long range plans and budgets (5) there is a need for constant monitoring and evaluation of all on going programs.

In simple words, then, PPBS is a system of relating planning to budgeting that seeks to get your dollars worth for you by analyzing what you are doing in light of what you should be doing and plan to do in the years to come and tieing that back to your standard yearly budget. The standard budget, remember, has no clearly defined program objectives, no consideration of time beyond the target fiscal year, no consideration of allied programs by other functions of the government (or other suppliers of the service) and no comparison of alternative courses of action. Thus

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1/ Further treatments of this subject can be found in:

Jeffrey A. Raffel and Robert Shishko "Systematic analysis of University Libraries. An application of Cost-Benefit Analysis to the M. I. T. Libraries" Cambridge, Mass., M. I. T. Press 1969.

John E. Keller "Program Budgeting and Cost Benefit Analysis" College and Research Libraries, March, 1969, pp. 156-160.

Willard Fazar "Program Planning and Budgeting Theory. Improved Library Effectiveness by use of the Planning-Programming-Budgeting System" Special Libraries, September 1969, pp. 423-33.

Robert F. Munn "The Bottomless Pit, or the Academic Library as Viewed from the Administration Building" College and Research Libraries, January, 1968, pp. 51-54

Morris Hamburg (et al.) "A Systems Analysis of the Library and Information Science Statistical Data System: The Research Investigation" 2 parts. U.S. Dept of HEW, Office of Education, 1970 (unpublished interim report. Author is at Wharton School, University of Pennsylvania).

Philip M. Morse "Probabilistic Models for Library Operations with Some Comments on Library Automation" in Association of Research Libraries. Minutes of the sixty-third meeting, January 26, 1965, Chicago, Illinois, pp. 9-19.

2/ Better I feel would have been Planning Optimization. PPBS in the federal government at this time is facing certain changes in presentation.

for the decision maker, let us say your library board--or city council, there is only a take-it-or-leave-it-or-cut-it course of action recommended.

At this juncture the proponents of this form of fiscal management are insistent on saying (1) PPBS is not revolutionary except in arrangement (2) it is not a substitute for judgment, opinion, experience and wisdom (3) it is not an attempt to computerize the decision making process (4) it is not just another way to save money or cut expenditures (5) it is not just another budget (6) and it is not the answer to every problem involving every issue.

Study these "nots" carefully, for in them are resident all the prejudices against a planning type budget. Systems analysis on which the technique is based is nothing more than thinking VERY carefully about something. It is NOT an exact science. Since it deals with the future and many imponderables it merely tries to ascertain a ROUGH estimation of the costs and effectiveness of alternative ways to reach an objective. These findings then are blended in the decision makers mind with his intuition and with his experience to help him arrive at a decision. It has been recognized[3] that our culture unfortunately has a fixation on exact figures. The critical point is that some approximations to a decision maker definitely is better than none at all.

To proceed with a planning budget one must follow a generally standard pattern. This pattern is introduced by intensive thinking or analysis about the library needs of your community, a process with which all of you are familiar. How large is the population? What is the age class distribution? What is the educational profile? What is the social, economic and industrial composition? What are the types of services the community desires? And to what extent are these services provided by school libraries, religious and social organizations, your own library and other sources? Finally and most important, what are the realistic unmet needs or problem areas?

Now that you have thought over the needs it is essential that you analyze the potential and actual benefits of the service you perform. This gets a little hairy. There exist obvious benefits such as assisting in raising the economic level of the patron, and providing some spiritual and emotional comfort to the elderly. But think of the indirect benefits which come in reallocating the leisure time of the ghetto youngster to less time on the street and more time before a book--almost any book. Benefits must be

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3/ M. J. Moroney "Facts from Figures" Baltimore, Md., Penguin, 1964, p. 459.

carefully thought out, evaluated by ANY means possible, and amenable to attractive display to the decision maker. They can be simple end product results of an activity or more complex value judgments and calculations.

The remainder of the routine about to be described is not accomplished by a single "run through". The process must be iterated a number of times to accommodate new problems uncovered in the routine.

(1) Critically define what your broad goals and objectives are. These should be in terms of services to the people--not functions of operating the library. Don't just copy them from your charter but analyze the fundamental targets for your work. The city charter may say that, "The mission of the library is to provide a free library service to the people of Smithfield." But what is "free library service"? Does it extend to social activities à la High John? What are your obligations to each of the component elements - be it ethnic, recreational, commercial, religious, educational, social or avocational--of Smithfield? We know we have needs--many unmet. Which of these needs are we aiming at? It has been estimated that the effort to reach a firm understanding of broad goals and later of lesser objectives (both of which may vary over the years) occupies nearly 50% of the analysis time. A 1970 Project Report at Western Michigan University "The Identification of Common Library Goals, Objectives and Activities Relative to a Planning, Programming, Budgeting System" spells this problem out in greater detail.

(2) Lay out your program structure. This is a kind of table of organization chart setting forth your team by function. This can be a simple:

a. Technical processes

b. Readers services

c. Administrative services[4]

Or it can be broken down as Hamburg does:

a. Providing physical facilities

b. Providing access to documents within the library

4/ Programs are broken down further into program elements. If readers services is a "program", Municipal Reference Service can be a "program element."

c. Providing access to documents to other libraries

d. Providing aids to identify and locate documents and conveying information

e. Planning, administration and support[5]

Of course, there are many other ways.

(3) Set out the objectives for each program - objectives which, of course, are auxiliary to carrying out the major objectives or goals of the library. And lay out ways to measure effectiveness of the methods being used to accomplish the objective. The latter is not always simple. There is, for example, no agreement on the measure of the overall effectiveness of a library system. Hamburg, who uses weighted exposure (timed usage of library materials) to measure the efficiency of the system also points out a number of other measures such as the proportion of user demands satisfied, circulation, attendance, registrants per capita, a document delivery test and a weighted inventory of library services, both of the latter proposed by the Institute for the Advancement of Medical Communication.[6]

(4) For each objective, detail every possible way of attaining that objective your minds can devise. Let us say our objective involved setting up a program of minor binding and repair of library materials. Alternatives could be (a) contract with local firm (b) contract for home service by shut-ins through Goodwill Industries (c) fund a separate department (d) declare a policy of not repairing but rather discarding, of all damaged items except a very few to be sent out commercially (e) teach reference people elements of repair and have them do work in slack moments on the desk.

(5) Make a cost-effectiveness study of the alternative approaches of each alternative. This is a tough one. It says in effect, "What will it cost me per unit[7] in the future if I do this operation in each of the five proposed ways and what will I give up or gain?" This process can usually be effected only by using a model to simulate the actual operation of each alternative.

5/ op. cit. pp. 27-28.
6/ ibid, chap. 2. For pictorial depiction of material to follow see Fig. 1.
7/ Output and its cost is critical to PPBS.

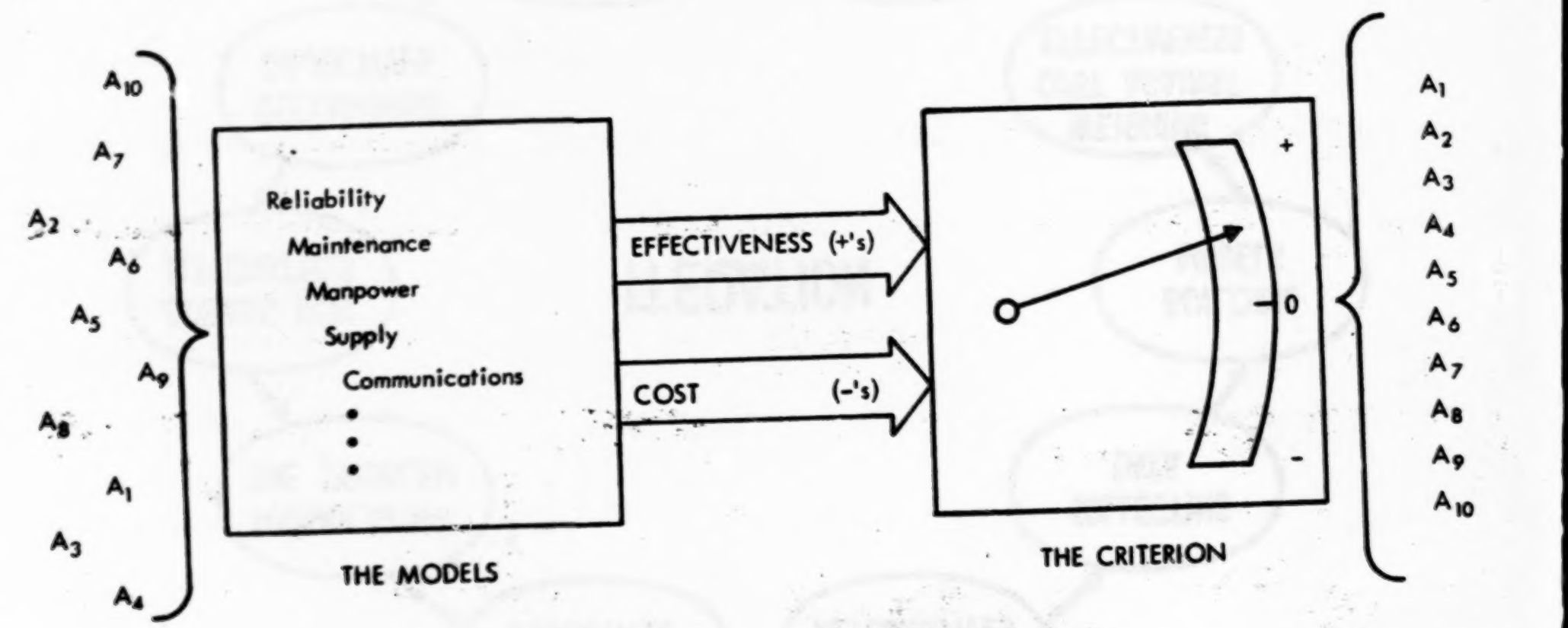
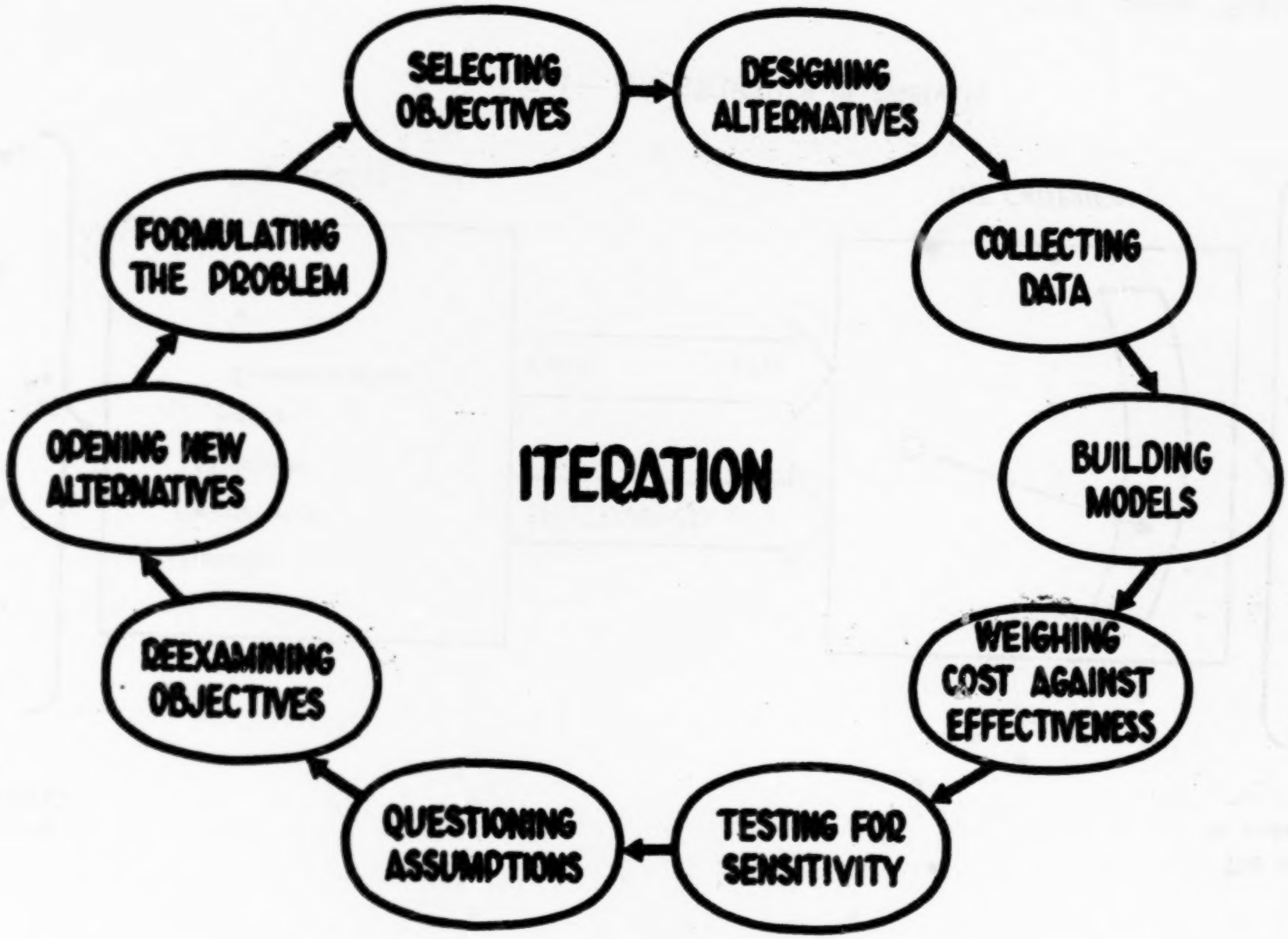


Fig. 1—The structure of analysis

E. S. Quade "Systems Analysis
Planning-Programming-Budgeti
Santa Monica, California, The
Corporation, 1966.



—The key to analysis

A model is an abstraction or realization of some aspect of the real world. There are three kinds of models - iconic, analog and symbolic.[8] The first is a literal or exact representation of the object - i. e. photos, scale drawings, two or three dimensional models. The second is usually encountered as a flow process chart. The third is strictly mathematical - seeking to find equations to express all the constants, parameters and variables in a given situation. A symbolic model can be extremely complex and amenable only to computerization or it can yield to simple calculations. Any model must build into it certain assumptions which may or may not be valid. Therefore the results of the test of any operation on a model of a library system must in turn be subject to further tests--tests which say, "what if..... "These sensitivity tests as they are called simply vary the assumptions to provide for a number of possible variances from the normal predictable course of events.

(6) Lastly there is a definite need for criteria--rules or standards by which to rank the alternatives in order of desirability. (Criteria are not necessarily simply monetary in nature). This can be tricky. Consider this. If your goal is to lower traffic fatalities, what weight do you give the irritation and delay caused to motorists by schemes which lower automobile speeds in one area and in turn cause more speeding elsewhere.

An immutable rule of PPBS is that the procedure described above be applied frequently to new problem areas or new alternatives - at least each budget cycle. Changes are inevitable - changes in costs, population, trends, technological developments, tastes et al which dictate that all procedures need review. Feeding into the process the new material gained in the time lapsed can produce a still more effective management tool.

Methodology for performance evaluation must also be developed and applied thru the budget cycle to see how our programs are doing. In truth, the only valid measure is what we really accomplished. How many patrons were served? Which ones and where? How adequate was the service? To what extent were needs not met? What services did you provide which had little use? Who patted you on the back for your work and who complained? What new problems has the evaluation uncovered?

8/ Models may also be divided into descriptive, predictive or decision categories. Simple models may be found in Morse op. cit. and Ferdinand F. Leimkuhler "Systems Analysis in Libraries" Event No. 233, Annual Meeting, American Society for Engineering Education, UCLA. June 17-20, 1968, Los Angeles, California. (Available from the ERIC system).

Now is it possible to integrate the planning technique described above into the yearly standard budget? Or is it necessary that the planning document always remains as "supplementary reading" to the usual budget? The question is really yours. Is your board ready to change from an object class budget to a program budget? That is, are they ready now to view the budget as simply a financial expression of program decisions that have been made?

If so, let us look at a simplified situation. Smithfield has completed its study and decided to concentrate on two new programs (a) extension service to business (b) an out-reach program for ghetto residents. For the latter the following possibilities were studied: (a) a branch library (b) extended bookmobile service (c) a contractual arrangement with churches in the area (d) a contractual arrangement with the local schools (e) a store-front locale to distribute free books (f) a contractual arrangement with a local indigenous group to be trained and backed up by the library staff. (See Fig. 2 for sample display depicting information necessary for assistance in decision making). The librarian has decided on the latter course - the complete findings, of course, being submitted with the budget to the board. We will assume the board is in agreement with the librarian as to the alternative selected.

Under these circumstances a part of the budget display would be:

B. TO PROVIDE DIRECT SERVICE TO PATRONS

	$ 1971	EST 1972	$ 1973	$ 1974	$ 1975	$ 1976	$ 1977	$ 1978	
1. Main Library Personnel									
2. Bookmobile Personnel									
3. Branch Libraries Personnel									
4. Program Outreach	-	-							
5. Direct Business Service Personnel	-	-							9
	1971	1972	1973	1974	1975	1976	1977	1978	

9/ Obviously this is a very simplistic planning budget. Correctly done it would provide the library board with alternate courses and costs for each program for each future year.

Figure 2

Program: Outreach to Ghetto Residents
Objective: To increase circulation in district to 15% of total (now 1.2%) of city and reference service to 10% (now .3%)

ternatives	Cost 1973-1978	Units of Accomplishment	Percent of Objectives Reached	Advantages	Disadvantages	Index of Effectiveness
Branch Libraries						4*
Bookmobiles						4
Contract with churches						3
Contracts with local schools						2
Store fronts						3
Contracts with indigenous groups - library staff support						1

udgmentally arrived at weight.

Now, if your board insists on the object class form but will accept a crosswalk (relating object class to function) structure for a better picture of where the reader service money is going, try this:

	Reference Main Library	Bookmobile	Branches	Program Outreach	Direct Business Service			Reader Service Total 1972
Personnel								
Books, Periodicals, etc.								
Materials								
Furniture & Equipment								
Travel								
Capital Outlay								

This paper has been dedicated to the planning aspects of PPBS. There is, of course, a huge potential for salesmanship in the effective display of a budget such as has been described. Attractive and meaningful charts and graphs of the material developed in your analysis can be potent sales tools. Inept presentation, of course, can be disastrous.

It has been easily apparent now to readers familiar with PPBS that in stripping the process of the mysteries of its techniques I have of necessity somewhat distorted the picture. Again it should be emphasized there is no one rigidly applied format for PPBS. Unfortunately, there is no textbook on PPBS for libraries such as school administrations have for the field of education.[10] Let us hope our scholars give us something similar for the area of information services. And then let us hope more library schools will devote a healthy portion of the administration course to systematic planning for the future of a library.

10/ Harry J. Hartley "Educational Planning, Programming, Budgeting, a Systems Approach" Prentice-Hall, 1968.

SOURCES CONSULTED

1. E. S. Quade "Systems Analyses Techniques for Planning - Programming - Budgeting" Santa Monica, Rand Corporation, 1966, 31 pp.

2. Hamburg, op. cit.

3. Gerald L. Robinson "PPBS: Planning for Schools of the Future" Battelle Research Outlook, Vol. 2, no. 2, 1970, pp. 22-26.

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